

REMARKS

Claims 28-54 are pending, upon entry of the amendments submitted above. Favorable reconsideration is respectfully requested.

Applicants would like to thank Examiner Collins for the helpful comments provided in a voicemail for the undersigned around the beginning of April 2005. In that voicemail, the Examiner suggested submitting a claim directed to increased raffinose synthase activity as a way of potentially overcoming the cited references.

The present invention relates to a method of increasing the drought resistance of plants by introducing a specified polynucleotide into plants and growing plants under drought conditions. See Claims 28 and 33.

The present invention also relates to a method of increasing resistance to high salt concentration in plants by introducing a specified polynucleotide into plants and growing plants under high salt conditions. See Claims 38 and 43.

Thus, those claimed methods explicitly specify that the plants are grown under drought conditions (Claims 28 and 44) or high salt conditions (Claims 38 and 43).

The present invention also relates to a method of increasing the raffinose synthase activity of plants, comprising

introducing a polynucleotide encoding a protein having raffinose synthase activity into plants, wherein the plants have a higher raffinose synthase activity compared to the plants prior to introducing the polynucleotide. See Claim 48.

The rejection of Claims 28-47 under 35 U.S.C. §102(a) over EP 0 994 186 (hereinafter referred to as "EP '186") is respectfully traversed. EP '186 fails to describe the claimed methods.

EP '186 describes a raffinose synthase gene, a process for producing raffinose, and a transformed plant. See the Abstract.

In order for EP '186 to anticipate the claims, the reference must disclose growing the transformed plants under drought conditions or high salt conditions. It does not. See pages 12-14 and Example 5 at pages 21 and 22. In that Example, the transformants were selected using antibiotics. See paragraph 158 at page 22. Nowhere in the reference is growing the transformed plants under drought conditions or high salt conditions disclosed. In fact, the reference is completely silent with respect to drought resistance or resistance to higher salt concentrations.

In addition, according to EP '186 the plant produced in that reference does not have an increased raffinose synthase activity compared to the plant before introducing the gene.

In view of the foregoing, EP '186 fails to disclose or suggest the claimed methods. Withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 28-31 and 38-41 under 35 U.S.C. §102(b) over EP 0 849 359 (hereinafter referred to as "EP '359") is respectfully traversed. EP '359 fails to describe the claimed methods.

EP '359 discloses raffinose synthetase genes which code for proteins capable of producing raffinose. See the Abstract.

Examples 13 and 14 describe the transformation of mustard and soybean somatic embryo with the gene, respectively. See pages 18-20. In that Example, the transformants were selected using antibiotics. Nowhere in the reference is growing the transformed plants under drought conditions or high salt conditions disclosed.

In fact, the reference is completely silent with respect to drought resistance or resistance to higher salt concentrations. EP '359 certainly fails to disclose either (a) growing plants under drought conditions or (b) growing plants under high salt conditions. Therefore, EP '359 fails to describe selecting plants for improved drought resistance or higher resistance to high salt concentrations.

In addition, according to page 19, lines 26-41 of the reference, it was not confirmed whether the plant described in the reference expresses the raffinose synthase gene. For that reason, it can hardly be said that the plant has a higher raffinose synthase activity as claimed.

In view of the foregoing, EP '359 fails to disclose or suggest the claimed methods. Withdrawal of this ground of rejection is respectfully requested.

The rejection of Claims 28-47 under 35 U.S.C. §102(b) over JP 411123080 (hereinafter referred to as "JP '080") is respectfully traversed. JP '080 fails to describe the claimed methods.

According to the Abstract, JP '080 discloses a gene for raffinose synthetase, production of raffinose, and a transformed plant. There is no indication that the reference describes that the plants have increased drought resistance or resistance to higher salt concentrations or growing the transformed plants under drought conditions or high salt conditions. Regarding increased raffinose synthase activity, Applicants note that the disclosure of JP '080 is almost the same as EP '186. Thus, like EP '186, the plant produced in JP '080 does not have an increased raffinose synthase activity compared to the plant before introducing the gene

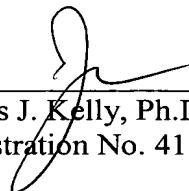
In view of the foregoing, JP '080 fails to disclose or suggest the claimed methods. Withdrawal of this ground of rejection is respectfully requested.

Application No. 09/810,186  
Reply to Office Action of September 17, 2004

Applicants submit that the present application is now in condition for allowance and early notice of such action is earnestly solicited.

Respectfully submitted,

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